Financial markets

Financial market setting

Financial markets robust despite political and economic uncertainty

The international financial markets proved to be relatively robust in the first few months of 2013 despite a troubled political and economic setting in part. The highly accommodative monetary policy measures taken by key central banks, most of which were directly targeted at the capital markets, counteracted the impact that the political uncertainty in connection with the elections in Italy and the aid package for Cyprus as well as some negative economic reports were having on the bond and equity markets. In May, some economic data that met with a positive reception among market participants helped to buoy sentiment, clearly lifting yields from their depressed levels. As this report went to press, yields in the major currency areas were slightly up on their levels at the beginning of the year on balance. Equity prices have been climbing strongly. The Japanese equity market posted particularly strong gains (+44.7%); at the same time, the yen depreciated significantly against most other currencies, including the euro, chiefly on account of the highly expansionary new stance adopted by Japanese monetary policymakers.

Exchange rates

Euro exchange rate developments against the US dollar, …

In recent months, heightened political uncertainty in the euro area and shifting assessments of monetary policy measures in the various currency areas have been the focus of attention on the foreign exchange markets. After trading at US$1.36 at the beginning of February, with support from measures to alleviate the sovereign debt crisis, the euro had dropped back to US$1.28 by the end of March. This decline came as a consequence of the general election result in Italy and the associated difficulties in forming a stable government, as well as the escalating financial crisis in Cyprus. Speculation about the US central bank calling an early end to its asset purchases, triggered by the minutes of its meeting on 30 January this year, placed the euro-dollar exchange rate under additional pressure.

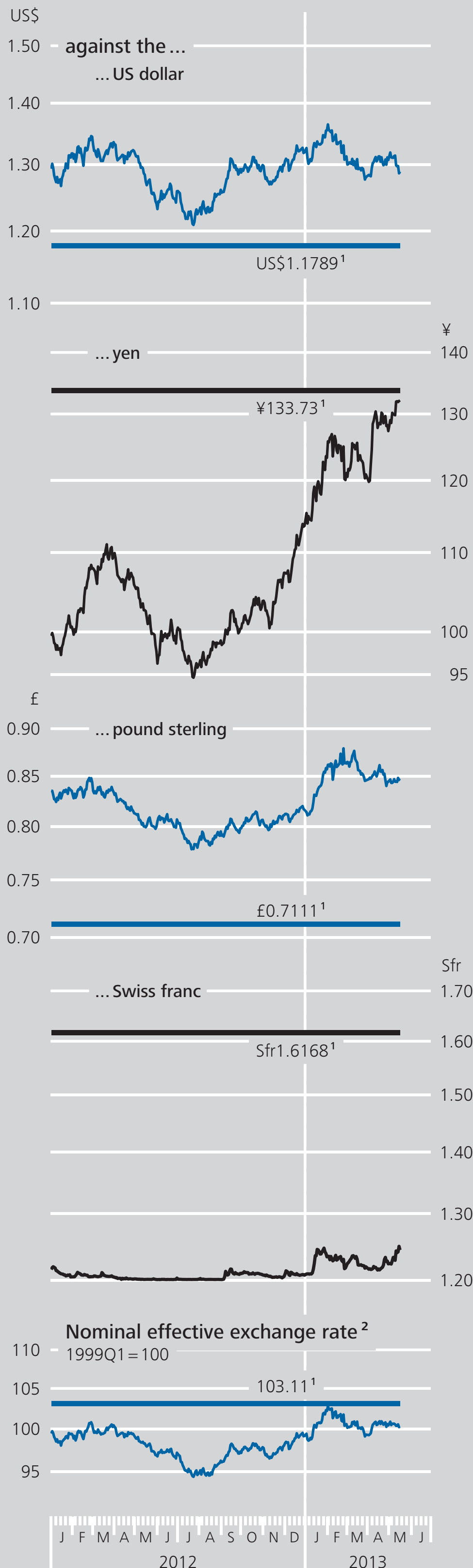
In the first half of April, the euro made good some of its previous losses following agreement on an aid package for Cyprus and after it had become clear that there had been no significant contagion effects in other euro-area countries. Around the same period, worse-than-expected US labour market data reduced the likelihood of an early end to the Fed's asset purchase programme, also underpinning the euro-dollar rate. In the second half of the month, the euro showed no clear direction. Whilst the publication of an unexpectedly sharp drop in the ifo Business Climate Index for Germany and surprisingly low inflation in the euro area fuelled speculation of an interest rate cut for the Eurosystem, at the same time the announcement of disappointing economic data in the United States and the formation of a government in Italy lent support to the euro-dollar exchange rate. Following the ECB Governing Council meeting at the beginning of May, at which an interest rate cut was indeed agreed, the euro declined in value somewhat. As this report went to press, the euro was trading at US$1.29, which was 2½% below its level at the beginning of the year.

… the yen …

The euro gained further substantial value against the yen in the period under review, owing principally to the announcement and implementation of various measures by the Japanese central bank to loosen its monetary policy. After Japan's finance minister had stated that there would be no controversial buying of foreign government bonds, the euro-yen rate eased somewhat for a time at the end of February; however, the losses were recouped in the first half of March. The discussion surrounding the Cyprus aid programme put the euro under temporary selling pressure, includ-

Exchange rate of the euro

Daily data; log scale



1 Exchange rate at the start of monetary union on 4 January 1999. **2** As calculated by the ECB against the currencies of 20 countries.

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ing against the yen. Following the Japanese central bank's announcement that it would henceforth manage the monetary base directly and double its size over the next two years, the euro-yen rate climbed 7% within a few days in the first half of April, trading at ¥130. The euro subsequently posted further gains, amid fluctuations. Latterly, the euro stood at ¥132, which was 16% above its value at the start of the year.

... and against the pound sterling

Against the pound sterling too, the euro initially gained in value until the end of February, but later surrendered some of its gains in the face of growing uncertainty in connection with the Cyprus aid programme. The announcement of an unexpected rise in the UK's gross domestic product for the first quarter of 2013 also weighed on the euro-pound rate. As this report went to press, the euro stood at £0.85, which was 3½% above its value at the beginning of the year.

Effective euro exchange rate

Since the beginning of 2013, the euro's average value vis-à-vis the currencies of 20 major trading partners has risen by 1%. The significant gains against the yen and the pound sterling mentioned above contrast with losses against the US dollar and a slight decline against the currencies of China, Romania, Hong Kong and Sweden. Against the Swiss franc, the euro most recently stood at CHF 1.24, after hovering just above the Swiss National Bank's minimum rate of CHF 1.20 throughout 2012. The price competitiveness of euro-area suppliers compared with important trading partners has deteriorated somewhat as a result of the euro appreciation and – measured by the long-term average – is trending at an unfavourable level.

Securities markets and portfolio transactions

International bond markets

In the period under review, the international bond markets benefited from steps taken by the central banks to loosen monetary policy,

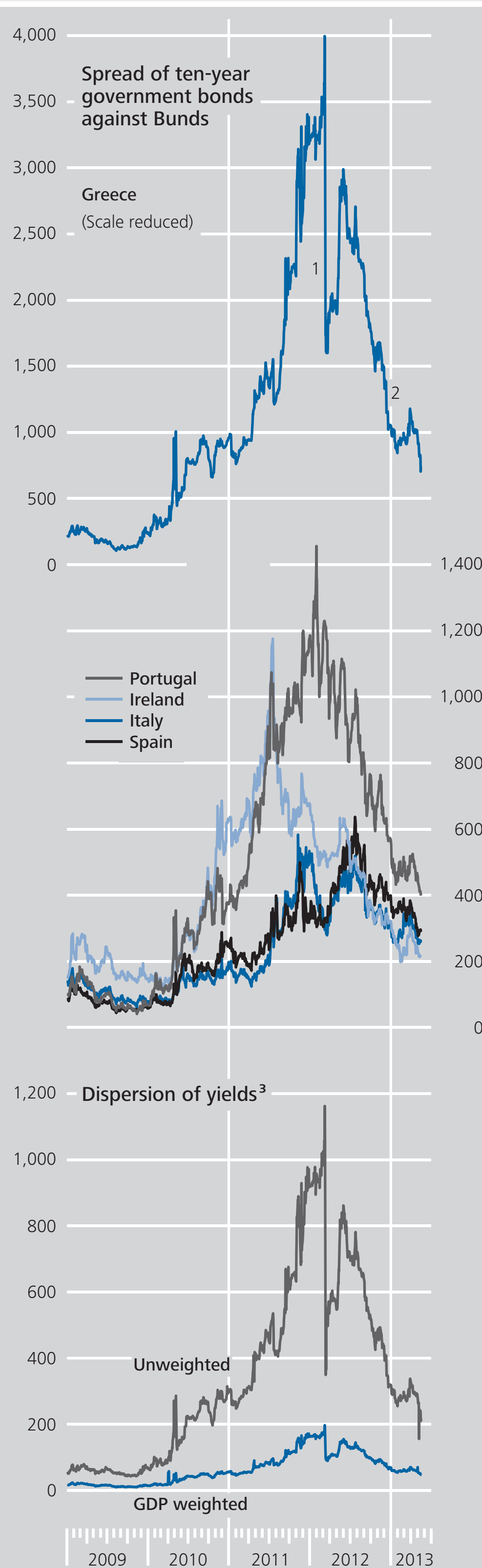
mostly aimed explicitly at yields on government bonds. As a result, the major currency areas experienced rising bond prices until well into April. This was true not just of safe haven countries like the United States, Japan and Germany, but also of smaller or peripheral economies with lower credit ratings. The US Federal Reserve continued with its purchases of government bonds to the value of US$45 billion a month as decided at the beginning of the year and its buying of mortgage-backed securities in the amount of US$40 billion a month as decided in September 2012. In the euro area, the Eurosystem's operational but as yet inactive Outright Monetary Transactions (OMT) programme served to calm the markets for debt securities. The interest rate reduction at the beginning of May also put downward pressure on yields. Across the Pacific, the Japanese central bank increased its inflation target for the next two years in two steps, whilst announcing, amongst other things, a programme to buy substantial quantities of Japanese government bonds, particularly at the long end. On the economic front there were some disappointing signals at first, leading to the downward revision of growth projections for some countries, which in turn was also reflected to an extent in lower yields on medium to long-dated bonds. In May, however, news of surprisingly positive earnings for the government-backed mortgage lenders and the prospect of higher future tax receipts in the United States, as well as positive economic indicators in Germany and the euro area, helped to shift yields well off their low points.

Central bank measures bolster government bond prices

In the United States, yields on ten-year Treasuries stood at close to 2% as this report went to press, which is almost a quarter percentage point higher than at the end of 2012. In Germany, meanwhile, the yield on public-sector debt securities with a ten-year maturity has risen by five basis points overall since the start of the year, and latterly stood at 1.3%; during this period it has sunk to 1.1%, close to its low point of mid-2012 when yields on Federal bonds were driven down by major safe haven

Yield spreads in the euro area

Basis points, daily data



Sources: Thomson Reuters and Bundesbank calculations. **1** Haircut of 9 March 2012. **2** Announcement of conditions for the Greek debt buyback programme on 11 December 2012. **3** Standard deviation of yields of euro-area government bonds.

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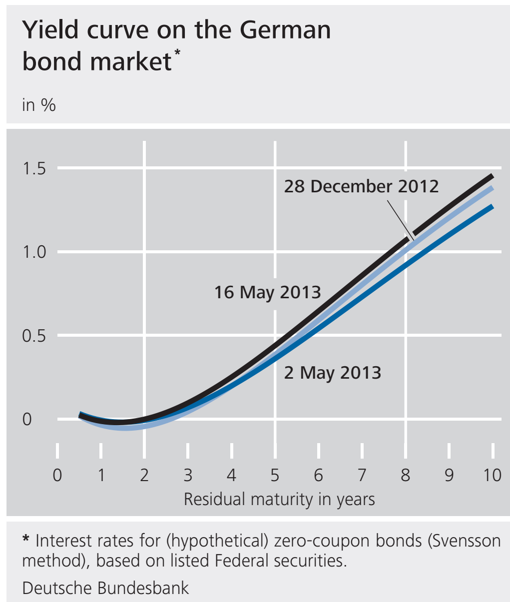

Yield curve on the German bond market*

* Interest rates for (hypothetical) zero-coupon bonds (Svensson method), based on listed Federal securities.
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inflows. Yields also rose a little in the United Kingdom, with ten-year gilts trading at 1.9%, whilst in Japan yields on ten-year government bonds stood at a record low of 0.6% in April before rising significantly at the end of the period under review to a level five basis points above their 2012 year-end position.

Yield spreads in the euro area narrower

Following tensions on the bond markets of some euro-area countries in February and March caused by the stalemate between the major parties arising from the general election result in Italy and the bail-in of bank depositors in the rescue of over-indebted Cypriot banks, in April there was a return to the trend towards a narrower euro-area yield spread evident since mid-2012. Compared with the end of 2012, the interest rate dispersion of long-dated government bonds in the euro area has fallen to 220 basis points, and the GDP-weighted yield spread of government bonds of other euro-area countries over German Federal bonds with matched maturities has narrowed to 180 basis points. Falling yields in euro-area peripheral countries (with the exception of Slovenia) over this period reflect not least the expectation of a key interest rate reduction, an expectation which was fulfilled at the beginning of May. In addition, some of the programme countries succeeded in obtaining repayment extensions for the EFSF funds they have received. The overall easing of tension was also demonstrated by more favourable issuing conditions for peripheral countries' sovereign debt securities on the capital market. Nonetheless, information from some commercial banks and changes in holdings recorded in MFI balance sheet statistics indicate that these countries' government bonds were bought to an increased extent by domestic banks and that non-European investors were generally net sellers. This would run counter to the desire to separate bank and sovereign risks.

German yield curve shifts upwards

At the beginning of 2013, yields on German Federal securities initially followed an upward trend in line with declining safe haven inflows and hopes of an economic recovery. In March, however, with the political imponderables resulting from the general election in Italy and the debt crisis in Cyprus, the falling nominal yield trend observed over more than five years resumed, before another steep upward movement in May. Overall, the German yield curve has shifted upwards almost in parallel since the end of 2012. The difference between ten-year and two-year bonds currently remains below its five-year average, at 145 basis points. Just prior to the interest rate cut on 2 May 2013, the yield curve was still significantly flatter. Slightly higher nominal interest rates contrasted with much sharper increases in the yields on inflation-linked bonds, particularly at the shorter end, which led to reduced break-even inflation rates (BEIR) and forward inflation expectations for the European Harmonised Index of Consumer Prices excluding tobacco. The five to ten-year forward BEIR fell to 2.1%. However, inflation swaps traded between banks – instruments which are less affected by safe haven inflows into nominal bonds – point to a slight rise in the five to ten-year forward inflation rate (2.3%).

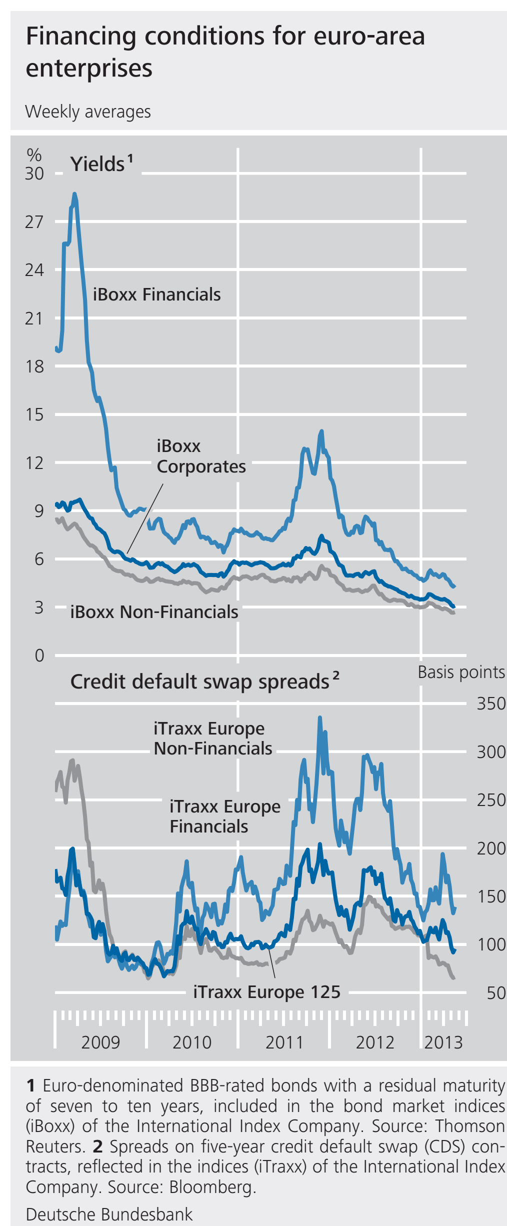
Improvement in financing conditions for enterprises

Financing conditions for enterprises on the capital market have improved since the end of the year in terms of yields. Latterly, BBB-rated corporate bonds with a residual maturity of seven to ten years issued by European financial

enterprises and by enterprises in the real economy were yielding 4.3% and 2.7% respectively,[1] thus trading below their respective five-year averages and below pre-crisis yield levels. Premiums against yields on German Federal securities with the same maturity, the risk-free yardstick, have also narrowed since the beginning of the year; however, at 300 and 130 basis points for BBB-rated financial-sector and non-financial-sector corporate bonds respectively, these premiums are still considerably higher than at the beginning of the crisis in mid-2007. The recent contraction in spreads, which indicates a reduction in market participants' risk aversion, is consistent with the parallel narrowing of credit default swap premiums (iTraxx) and reduced stock market uncertainty. In view of the downward revision of growth projections for some European countries – a significant revision in some cases – and the slight drop in earnings expectations for listed European enterprises, the low corporate bond yields reflect an increased reach for yield on the part of investors in a global low interest rate environment.

Financing conditions for euro-area enterprises

Weekly averages



1 Euro-denominated BBB-rated bonds with a residual maturity of seven to ten years, included in the bond market indices (iBoxx) of the International Index Company. Source: Thomson Reuters. 2 Spreads on five-year credit default swap (CDS) contracts, reflected in the indices (iTraxx) of the International Index Company. Source: Bloomberg.

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Net sales in the bond market up

The gross issuance volume on the German bond market amounted to €379½ billion in the first quarter of 2013, which was above the figure for the previous quarter (€329 billion). After deducting significantly higher redemptions and taking account of changes in issuers' holdings of their own bonds, on balance there were net redemptions of domestic debt securities to the value of €12½ billion. In addition, foreign borrowers placed debt securities worth €24 billion on the German market. Thus, funds totalling €11 billion were raised on the German bond market in the period under review.

Public sector borrowing

In the first three months of 2013, the public sector raised €7 billion on the bond market, compared with net redemptions of €15 billion in the previous quarter. The figures include issues from resolution agencies of German banks – these issues are ascribed to the public sector for statistical purposes. Central government itself issued mainly five-year Federal notes (€14 billion), and to a lesser extent 30-year Federal bonds (€2½ billion). Meanwhile, there were net redemptions of two-year Federal Treasury notes totalling €3½ billion. In the quarter under review, state governments redeemed their own bonds to the value of €5½ billion in net terms.

High level of issuance in corporate bonds

German enterprises took advantage of favourable financing conditions and undertook net issuance of debt securities on the German capital market to the value of €7½ billion in the

1 This is based on yields on corporate bonds included in the different rating grades of the iBoxx bond indices.

Investment activity in the German securities markets

€ billion

Item	2012 Q1	2012 Q4	2013 Q1
Debt securities			
Residents	40.7	– 26.2	0.2
Credit institutions	1.9	– 17.3	– 14.9
of which			
Foreign debt securities	– 0.2	0.3	– 2.7
Deutsche Bundesbank	0.5	– 2.4	– 4.1
Other sectors	38.3	– 6.5	19.2
of which			
Domestic debt securities	6.2	– 27.6	– 8.9
Non-residents	14.5	11.9	11.0
Shares			
Residents	7.5	20.2	14.5
Credit institutions	5.5	8.2	8.3
of which			
Domestic shares	10.2	0.4	4.4
Non-banks	2.0	11.9	6.2
of which			
Domestic shares	0.3	0.6	2.1
Non-residents	– 9.1	– 0.3	– 5.4
Mutual fund shares			
Investment in specialised funds	21.6	29.4	24.5
Investment in retail funds	– 0.5	3.0	5.0
of which			
Equity funds	– 0.9	0.7	0.0

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first quarter of 2013; this was considerably more than in the first quarter of 2012 and the previous quarter. For the most part, these enterprises issued securities with maturities of under one year.

Net redemptions by credit institutions

Domestic credit institutions, which have posted strong growth in deposits and inflows of funds from abroad during the financial crisis, reduced their capital market debt further – by €27 billion – in the first quarter of 2013. In particular, they redeemed public Pfandbriefe (€22 billion), which have had declining amounts outstanding for years, as well as other bank debt securities, which can be structured flexibly, (€15 billion) and mortgage Pfandbriefe (€5 billion). Specialised credit institutions, meanwhile, issued debt securities totalling €15 billion net.

Purchase of debt securities

In the first quarter of 2013, German non-banks were the main buyers on the domestic bond market; they added paper worth €19 billion to their portfolios. The focus of investor interest here was on foreign securities. Non-resident investors bought German debt securities for €11 billion. On balance, these were mainly securities issued by the public sector. By contrast, German credit institutions and the Deutsche Bundesbank disposed of interest-bearing paper for €15 billion and €4 billion respectively. In both cases, it was mainly domestic securities which were sold.

Positive sentiment on the equity markets overall

Sentiment on the international equity markets has been predominantly positive since the beginning of the year. For instance, the broad S&P 500 index in the United States has risen by 15.7%, while the Nikkei in Japan has gone up by as much as 44.7%. In both countries, this trend has to be seen against the backdrop of additional expansionary measures undertaken by their central banks amongst other things. Towards the end of the period under review, surprisingly favourable US labour market data also spurred investor optimism and lent further impetus to the international equity markets.

Easing of political tensions and expansionary monetary policy bolster share prices in Europe

The European exchanges were alone in repeatedly experiencing short-lived but appreciable setbacks in the face of the economic and political uncertainties mentioned above. Bank stocks were particularly affected by this. It was not least the formation of a new government in Italy and agreement on an aid package for Cyprus which enabled upward momentum to win through on the European equity markets. An expansionary monetary policy in the Eurosystem also gave support to prices, with the markets already anticipating an interest rate cut before the ECB Governing Council decided to make such a cut at the beginning of May 2013. Consequently, as this report went to press the broad Euro Stoxx and CDAX share price indices were up by 8.3% and 8.0% respectively on their levels at the beginning of the year. European bank stocks did not perform as well as the market as a whole, rising 4.3% overall since the beginning of the year. Price falls for Spanish institutions, in particular, weighed on the valuations of bank stocks.

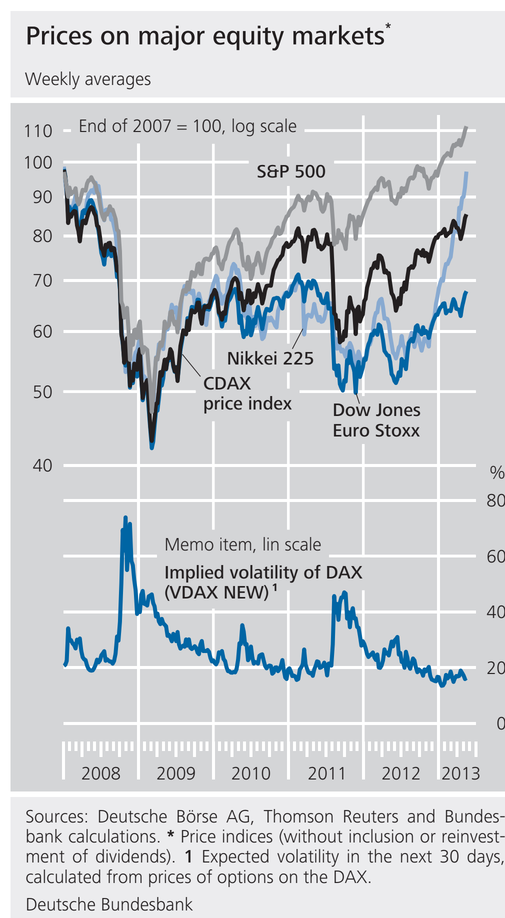
DAX performance index at a high – price indices still significantly lower

Despite the noticeable recovery in the labour market – which, depending on one's point of view, began in spring 2012 or autumn 2011 – most European share price indices remain a long way off their previous highs. The CDAX stands 23% short of its high, while the Euro Stoxx is 39% off. The picture looks different for performance indices, which include cumulative dividend payments and assume these dividends are reinvested in shares. For instance, the DAX performance index, which measures the performance of a portfolio of 30 major German corporations, reached a "historical" high of 8,369 index points in mid-May (closing prices on 16 May 2013, see chart opposite). The CDAX performance index has also exceeded its previous high of July 2007, unlike the Euro Stoxx performance index which has fared less well.

Little change in return expected from European stocks

The implied cost of equity for European enterprises, derived from a dividend discount model, remained at 8.0% for the Euro Stoxx. This means that the return on equity required by investors remains well above its low point recorded at the beginning of 2010, which suggests a degree of caution on the part of investors. Nonetheless, the price-earnings ratio calculated on the basis of earnings expectations was 11.6 in the spring, a level last observed around three years ago. Hence, the ratio is somewhat above its five-year average. However, for the Euro Stoxx 50 benchmark index, a comparison with dividend trends over the medium to long term points to a moderate share price move overall (for details, see pages 40 and 41). At the same time, uncertainty about prospects for the equity market was at a comparatively low level in the spring months, despite the heightened tensions in March. Measured according to the implied volatility of DAX options, it moved in a range of between 15% and 20%, well below its five-year average (27%).

Price-earnings ratio higher with a low level of price uncertainty



Prices on major equity markets*

Weekly averages

Sources: Deutsche Börse AG, Thomson Reuters and Bundesbank calculations. * Price indices (without inclusion or reinvestment of dividends). 1 Expected volatility in the next 30 days, calculated from prices of options on the DAX.

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DAX price and performance indices

4 January 1999 = 100, weekly averages, log scale

Source: Deutsche Börse AG and Bundesbank calculations.

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Stock market funding and stock purchases

Issuing activity on the German equity market remained relatively muted in the first quarter of 2013. Domestic enterprises issued €1 billion worth of new shares, the majority of which were listed equities. The volume of foreign equities outstanding on the German market rose by €8 billion. Equities were purchased primarily by German credit institutions (€8½ billion), which invested mainly in domestic securities on balance (€4½ billion). Resident non-

European share price movements in relation to dividends paid

European shares, the prices of which increased significantly during the second half of 2012, have continued to gain in value since the beginning of 2013. Shares have undoubtedly been bolstered by a number of factors which gave rise to an improvement in market sentiment, including the expansionary monetary policy being pursued across the world, the prospective assistance measures from the Eurosystem and the expectation that European banks will be successfully recapitalised. In order to assess the extent to which these price increases are in line with the fundamentals, this box examines their long-term relationship with dividend payments.

According to the dividend discount model, the price of a share *(P)* is equivalent to the present value of all future expected dividend payments *(D)* which are discounted using the cost of equity *(CE)*. Assuming constant cost of equity and a constant dividend growth rate *(g)*, the following applies to the price of a share at time t: $P_t = D_t(1+g)/(CE-g)$.[1] Experience has shown that, in the short term, share prices fluctuate more sharply than do dividend payments, which enterprises are inclined to keep as stable as possible; in the long run, however, the formula suggests that there is identical growth in both variables. The literature argues that this is to be expected for observation periods exceeding 25 years.[2]

To make an assessment of the relationship between share prices and dividends paid it is first necessary to select an appropriate base year. In the case of European stocks, as measured by the Euro Stoxx 50, data have been available since 1999. However, as stock markets were already being influenced by the new economy bubble at the time in question, we have taken early 2003 as the base year for the following analysis. Compared with 1999, equities are likely to have been priced more appropriately at the beginning of 2003, as evidenced by the price-earnings ratio which, at 12.2, stood considerably closer to the historical average in 2003.

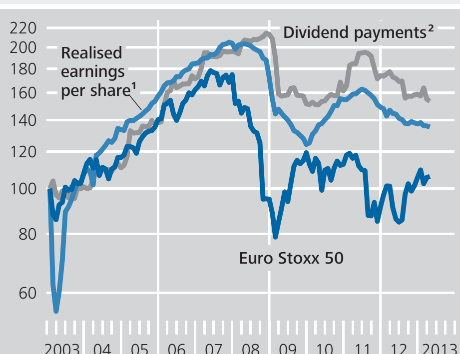
Since 2003, dividends and earnings have risen at a rate of about 50% and 40% respectively, outstripping increases in share prices which have only seen moderate overall growth. This is principally attributable to the financial and sovereign debt crisis during which prices either fell or tended to stagnate amid an environment of heightened risk aversion while dividend payments and earnings figures were blunted to a much less significant degree. Subject to the caveat that the ten-year observation period used is of limited informative value, European shares therefore appear to be priced fairly favourably given the relatively strong dividend growth which has been evident in the past. However, any comprehensive assessment needs to take particular account of expected future dividends. To this end, we make use of two sources of information below, namely dividend futures and Bloomberg analyst estimates.

Dividend futures on the Euro Stoxx 50 index have been traded on Eurex since mid-2008. The underlying of a future is the sum, converted to index points, of the dividends paid out by all those companies listed on the Euro Stoxx 50 in the respective year when the future reaches delivery date.[3] Hence, futures prices are partly influenced by market participants' expectations regarding the dividends that are to be distributed in the

1 See Deutsche Bundesbank, Monthly Report, March 2003, p 35.
2 See K Cuthbertson, D Nitzsch (2004), Quantitative Financial Economics, p 249.
3 The dividends under observation (excluding special dividend pay-outs, eg following the sale of individual business units) are gross dividends before tax. As a rule, the contract falls due for delivery on the third Friday of the month of December, with the final price corresponding to the dividend total, converted into index points. If the third Friday in December is not a trading day, the contract falls due for delivery on the trading day immediately preceding this date.

Share prices, dividend payments and realised earnings

January 2003 = 100, end-of-month levels, log scale



Sources: I/B/E/S and Bundesbank calculations. **1** Over the last 12 months. **2** Annual dividends.

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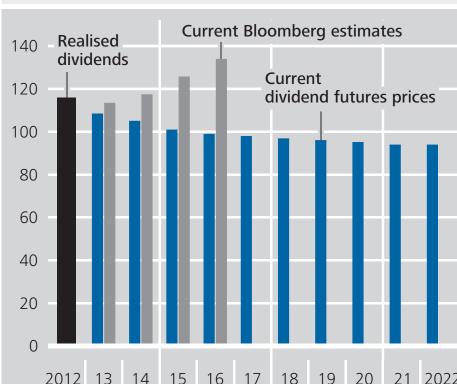
Measurement of expected dividends on the Euro Stoxx 50

Index points



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year concerned. A separate future is traded for delivery in each of the next ten years, in other words until 2022. These futures prices, which show a slightly downward trend, fall below the level of dividends realised in 2012 both for 2013 and for the years which follow. When interpreting this information, however, it is necessary to bear in mind that the futures prices in question understate the dividend payments expected by market participants due to the fact that these participants demand a markdown (dividend risk premium) to compensate for the uncertainty attached to future dividends. As a rule, the longer the period until dividends are distributed, the higher the degree of uncertainty and the higher the associated dividend risk premium, the level of which can only be estimated by making additional assumptions regarding dividend expectations.[4] That said, even disregarding the dividend risk premium, the trend in futures prices is only falling a little, which at least indicates that market participants do not anticipate a sharp decline in dividends. This conclusion is consistent with the dividend trend estimated by analysts (source: Bloomberg). Their forecasts, which are available for the period up to and including 2016, fall slightly below the 2012 value for the current year, but they point to increasing dividends in the years which follow.

All in all, dividend risk premiums complicate the task of interpreting dividend futures and analysts' estimates should be regarded with caution as they may be distorted.[5] Moreover, analysis of the long-term relationship between the Euro Stoxx 50 and dividends is limited by the data history that is available. Giving due consideration to these constraints, however, neither the dividends distributed in recent years nor the measures of expected future dividends provide any evidence to suggest that Euro Stoxx 50 share prices are following an unsustainable path.

In the case of the German equity market, an absence of dividend futures makes it impossible to conduct a corresponding analysis. However, if we look at past dividend payments, the picture presented by DAX companies is similar to that of the Euro Stoxx 50, inasmuch as the dividends paid out by German enterprises since 2003 have likewise risen considerably more sharply than the relevant share prices during the same period.

4 Taking the Euro Stoxx 50 as an example, Manley and Mueller-Glissmann showed that the implicit dividend risk premium they had calculated gradually decreases as the time until the delivery date of the futures contract lessens and as the amount of available information grows. See R Manley and C Mueller-Glissmann (2008), The Market for Dividends and Related Investment Strategies, Financial Analysts Journal, Volume 64, No 3.
5 For information on the forecast accuracy of analysts' estimates, see Deutsche Bundesbank, Monthly Report, July 2009, pp 26-28.

Major items of the balance of payments

€ billion

Item	2012 Q1	2012 Q4	2013 Q1
I Current account[1, 2]	+ 45.7	+ 53.5	+ 44.9
Foreign trade[1, 3]	+ 45.4	+ 44.8	+ 49.3
Services[1]	+ 0.9	+ 1.8	− 0.4
Income[1]	+ 18.0	+ 20.1	+ 18.6
Current transfers[1]	− 15.0	− 5.9	− 15.8
II Capital transfers[1, 4]	+ 0.2	− 0.6	+ 0.3
III Financial account[1] (Net capital exports: –)	− 42.8	− 80.9	− 40.0
1 Direct investment	− 23.8	− 1.4	− 12.8
German investment abroad	− 26.5	− 4.5	− 20.3
Foreign investment in Germany	+ 2.7	+ 3.1	+ 7.4
2 Portfolio investment	− 29.0	− 33.5	− 38.8
German investment abroad	− 33.7	− 45.8	− 44.5
Shares	+ 5.9	− 13.3	− 10.0
Mutual fund shares	− 6.3	− 12.6	− 10.7
Debt securities	− 33.3	− 20.0	− 23.8
Bonds and notes[5]	− 30.8	− 23.8	− 19.0
of which Euro-denominated bonds and notes	− 32.8	− 16.6	− 18.9
Money market instruments	− 2.5	+ 3.7	− 4.8
Foreign investment in Germany	+ 4.7	+ 12.4	+ 5.7
Shares	− 8.8	− 0.2	− 5.4
Mutual fund shares	− 1.0	+ 0.6	+ 0.1
Debt securities	+ 14.5	+ 11.9	+ 11.0
Bonds and notes[5]	+ 15.2	+ 11.0	− 1.3
of which Public bonds and notes	+ 29.2	+ 14.2	+ 6.9
Money market instruments	− 0.7	+ 1.0	+ 12.3
3 Financial derivatives[6]	− 2.4	− 4.2	− 4.0
4 Other investment[7]	+ 13.4	− 42.3	+ 15.7
Monetary financial institutions[8]	+ 232.8	− 70.0	− 8.8
of which short-term	+ 215.5	− 79.5	− 10.2
Enterprises and households	− 15.0	+ 10.2	− 20.4
of which short-term	− 9.4	+ 11.0	− 16.5
General government	− 23.1	− 32.7	+ 4.2
of which short-term	− 25.8	− 15.1	+ 3.9
Bundesbank	− 181.3	+ 50.2	+ 40.8
5 Change in reserve assets at transaction values (increase: –)[9]	− 1.0	+ 0.5	− 0.1
IV Errors and omissions	− 3.2	+ 27.9	− 5.3

1 Balance. **2** Including supplementary trade items. **3** Special trade according to the official foreign trade statistics (source: Federal Statistical Office). **4** Including the acquisition/disposal of non-produced non-financial assets. **5** Original maturity of more than one year. **6** Securitised and non-securitised options as well as financial futures contracts. **7** Includes financial and trade credits, bank deposits and other assets. **8** Excluding the Bundesbank. **9** Excluding allocation of SDRs and excluding changes due to value adjustments.

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banks bought shares for €6 billion, with a particular focus on foreign securities. By contrast, foreign investors sold German shares in the amount of €5½ billion.

Sales and purchases of mutual fund shares

During the period under review, German investment companies recorded inflows of €29½ billion, after raising funds totalling €32½ billion in the previous three months. The new money mainly benefited specialised funds reserved for institutional investors (€24½ billion). Amongst retail funds, mixed security-based funds (€2 billion) as well as open-end real estate funds (€1½ billion) and bond funds (€1 billion) were the main issuers of new shares. Foreign funds distributed in the German market acquired new resources totalling €10½ billion net in the first quarter of 2013. Domestic non-banks were the main buyers, adding €38½ billion worth of mutual fund shares to their portfolios. This was domestic paper for the most part. Domestic credit institutions acquired mutual fund shares to the value of €1½ billion, which were almost exclusively foreign securities overall. On balance, foreign investors had only a marginal involvement in the German mutual fund market.

Direct investment

Capital exports in direct investment

As with cross-border portfolio investment, which experienced net outflows amounting to €39 billion in the first quarter of 2013, there were also net capital exports in the direct investment account. On balance, at a value of €13 billion, these were well above the prior-quarter figure (€1½ billion).

German direct investment abroad

Cross-border direct investment by German proprietors was of key importance (€20½ billion). They increased their foreign investment activity both by expanding their capital interests (€6 billion) and by reinvesting earnings generated abroad (€10 billion). They also furnished their non-resident business establishments with funds through intra-group loans (€4½ billion). By far the most significant destination for German investment abroad in the period under re-

view was the Netherlands (€11 billion). However, this figure was greatly boosted by a German service provider's decision to refocus its cross-border credit portfolio; the shift was mirrored in an equivalent change in the figure for Luxembourg, and thus had a neutral effect on German direct investment overall.

Foreign direct investment in Germany

Foreign investors increased the funding of their German business establishments in the first quarter of 2013 by €7½ billion. Principally, they reinvested the profits of their German subsidiaries (€5 billion) and granted them loans (€3½ billion). In the main, these investors came from European countries, among them Belgium (€5½ billion) and Sweden (€2 billion).